

OSINT Framework - Complete Guide & Tutorial

Introduction

This comprehensive guide covers **OSINT Framework** - a powerful collection of Open Source Intelligence (OSINT) tools for information gathering and reconnaissance. This project demonstrates professional-grade intelligence gathering techniques used in cybersecurity, penetration testing, and digital investigations.

DISCLAIMER: This guide is for educational purposes only. Always obtain proper authorization before conducting any reconnaissance activities.

What is OSINT Framework?

Definition

OSINT (Open Source Intelligence) is the practice of collecting and analyzing publicly available information from various sources to produce actionable intelligence.

OSINT Framework is a web-based collection of OSINT tools and resources organized into categories, helping security professionals and researchers:

- Gather information about targets
- Perform reconnaissance
- Investigate digital footprints
- Analyze public data sources

Key Components

1. **Username Search** - Find accounts across platforms
2. **Email Investigation** - Trace email addresses
3. **Domain/IP Analysis** - Research network infrastructure
4. **Social Media Intelligence** - Gather social platform data
5. **People Search** - Find personal information
6. **Search Engines** - Specialized search tools
7. **Documents & Files** - Metadata analysis

Prerequisites

System Requirements

Operating System: Kali Linux (VirtualBox VM)

RAM: Minimum 4GB (8GB recommended)

Storage: 30GB free space

Internet: Stable broadband connection

Required Knowledge

- Basic Linux command-line skills
- Understanding of networking concepts
- Familiarity with web browsers
- Basic cybersecurity principles

Software Dependencies

- Python 3.x
- Git
- Web browser (Firefox/Chromium)
- Text editor (nano/vim)

Installation Guide

Step 1: Update Kali Linux

bash

Update package repositories

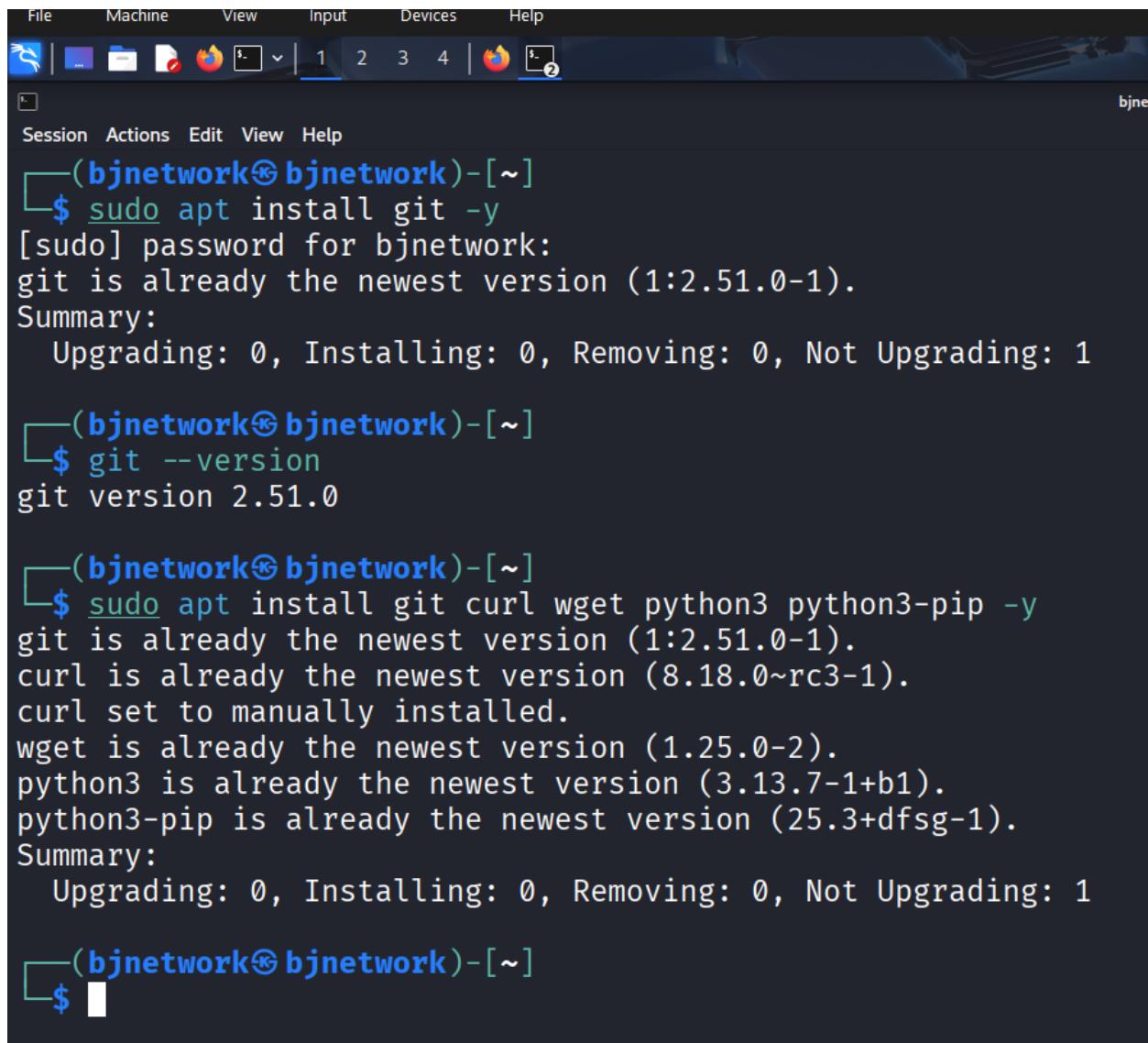
sudo apt update

Upgrade installed packages

sudo apt upgrade -y

Install essential tools

```
sudo apt install git curl wget python3 python3-pip -y
```



The screenshot shows a terminal window titled '(bjnetwork㉿bjnetwork)-[~]' with a dark blue background. The terminal displays the following command and its execution:

```
$ sudo apt install git -y
[sudo] password for bjnetwork:
git is already the newest version (1:2.51.0-1).
Summary:
Upgrading: 0, Installing: 0, Removing: 0, Not Upgrading: 1

$ git --version
git version 2.51.0

$ sudo apt install git curl wget python3 python3-pip -y
git is already the newest version (1:2.51.0-1).
curl is already the newest version (8.18.0~rc3-1).
curl set to manually installed.
wget is already the newest version (1.25.0-2).
python3 is already the newest version (3.13.7-1+b1).
python3-pip is already the newest version (25.3+dfsg-1).
Summary:
Upgrading: 0, Installing: 0, Removing: 0, Not Upgrading: 1

$
```

Step 2: Install OSINT Framework

```
bash
```

```
# Navigate to home directory
```

```
cd ~
```

```
# Create OSINT directory
```

```
mkdir osint-tools
```

```
cd osint-tools
```

```
# Clone OSINT Framework repository
```

```
git clone https://github.com/lockfale/OSINT-Framework.git
```

```
# Navigate to framework directory
```

```
cd OSINT-Framework
```

```
(bjnetwork@bjnetwork)-[~]
$ cd

(bjnetwork@bjnetwork)-[~]
$ mkdir osint-tools

(bjnetwork@bjnetwork)-[~]
$ cd osint-tools

(bjnetwork@bjnetwork)-[~/osint-tools]
$ git clone https://github.com/lockfale/OSINT-Framework.git
Cloning into 'OSINT-Framework' ...
remote: Enumerating objects: 1945, done.
remote: Counting objects: 100% (701/701), done.
remote: Compressing objects: 100% (123/123), done.
remote: Total 1945 (delta 661), reused 578 (delta 578), pack-reused 1244 (from 1)
Receiving objects: 100% (1945/1945), 1.49 MiB | 11.74 MiB/s, done.
Resolving deltas: 100% (928/928), done.

(bjnetwork@bjnetwork)-[~/osint-tools]
$ cd OSINT-Framework

(bjnetwork@bjnetwork)-[~/osint-tools/OSINT-Framework]
```

 **Screenshot Location:** Capture terminal showing successful git clone

Step 3: Set Up Web Interface

```
bash
```

```
# Install local web server
```

```
sudo apt install apache2 -y
```

```
# Copy framework to web directory  
sudo cp -r ~/osint-tools/OSINT-Framework /var/www/html/osint
```

```
# Set proper permissions  
sudo chown -R www-data:www-data /var/www/html/osint  
sudo chmod -R 755 /var/www/html/osint
```

```
# Start Apache service  
sudo systemctl start apache2  
sudo systemctl enable apache2
```

```
(bjnetwork㉿bjnetwork)-[~/osint-tools]  
$ cd OSINT-Framework  
  
(bjnetwork㉿bjnetwork)-[~/osint-tools/OSINT-Framework]  
$ sudo apt install apache2 -y  
apache2 is already the newest version (2.4.66-2+b1).  
apache2 set to manually installed.  
Summary:  
Upgrading: 0, Installing: 0, Removing: 0, Not Upgrading: 1  
  
(bjnetwork㉿bjnetwork)-[~/osint-tools/OSINT-Framework]  
$ sudo cp -r ~/osint-tools/OSINT-Framework /var/www/html/osint  
  
(bjnetwork㉿bjnetwork)-[~/osint-tools/OSINT-Framework]  
$ sudo chown -R www-data:www-data /var/www/html/osint  
  
(bjnetwork㉿bjnetwork)-[~/osint-tools/OSINT-Framework]  
$ sudo chmod -R 755 /var/www/html/osint  
  
(bjnetwork㉿bjnetwork)-[~/osint-tools/OSINT-Framework]  
$ █
```

Step 4: Access Framework

```
bash  
# Open Firefox browser  
firefox http://localhost/osint/index.html &
```

Alternative: Access via: http://127.0.0.1/osint/index.html

```
─(bjnetwork㉿bjnetwork)-[~/osint-tools/OSINT-Framework]
$ sudo systemctl start apache2

─(bjnetwork㉿bjnetwork)-[~/osint-tools/OSINT-Framework]
$ sudo systemctl enable apache2
Synchronizing state of apache2.service with SysV service script with /usr/lib/systemd/systemd-sysv-install.
Executing: /usr/lib/systemd/systemd-sysv-install enable apache2
Created symlink '/etc/systemd/system/multi-user.target.wants/apache2.service' → '/usr/lib/systemd/system/apache2.service'.

─(bjnetwork㉿bjnetwork)-[~/osint-tools/OSINT-Framework]
$ █
```

```
─(bjnetwork㉿bjnetwork)-[~/osint-tools/OSINT-Framework]
$ firefox http://localhost/osint/index.html &
[1] 42380

─(bjnetwork㉿bjnetwork)-[~/osint-tools/OSINT-Framework]
$ [1] + done      firefox http://localhost/osint/index.html
─(bjnetwork㉿bjnetwork)-[~/osint-tools/OSINT-Framework]
$ █
```